

FIG. 1

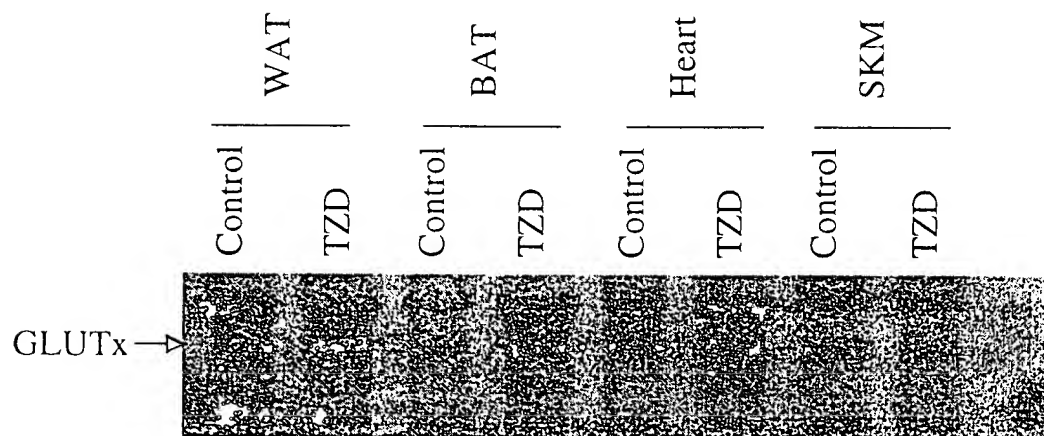


FIG. 2

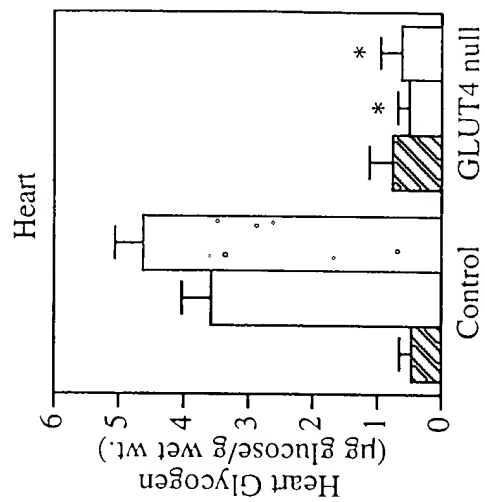
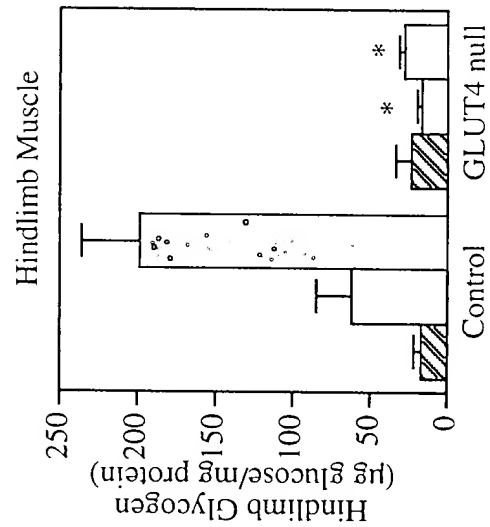
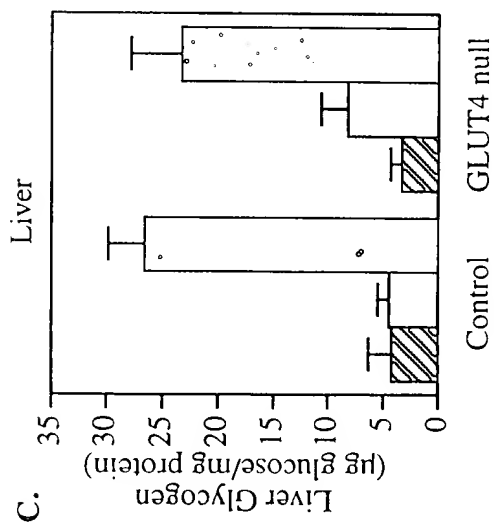
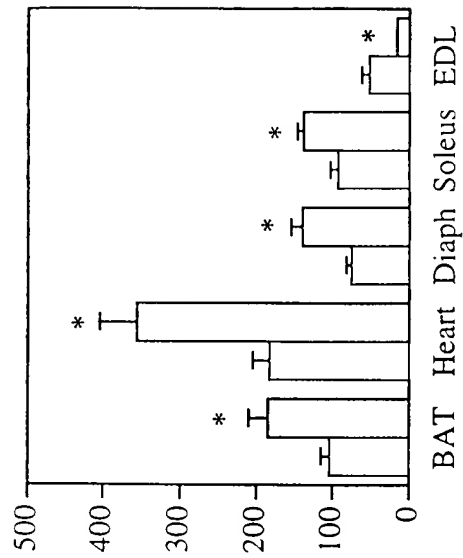
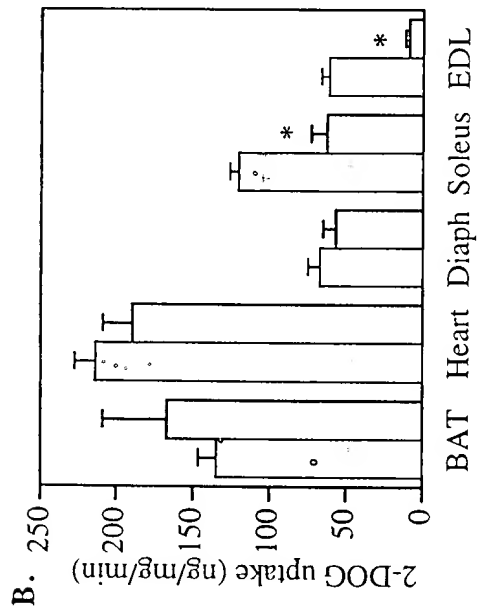
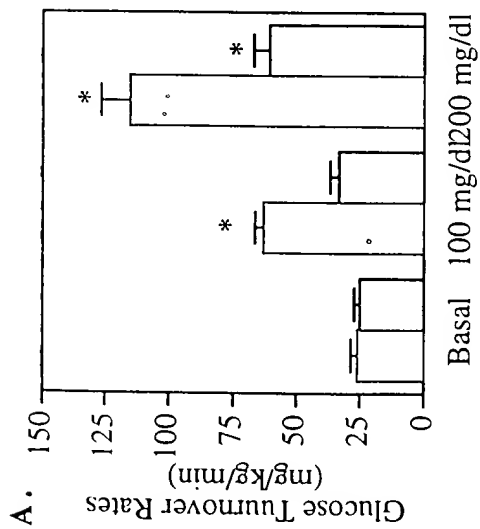
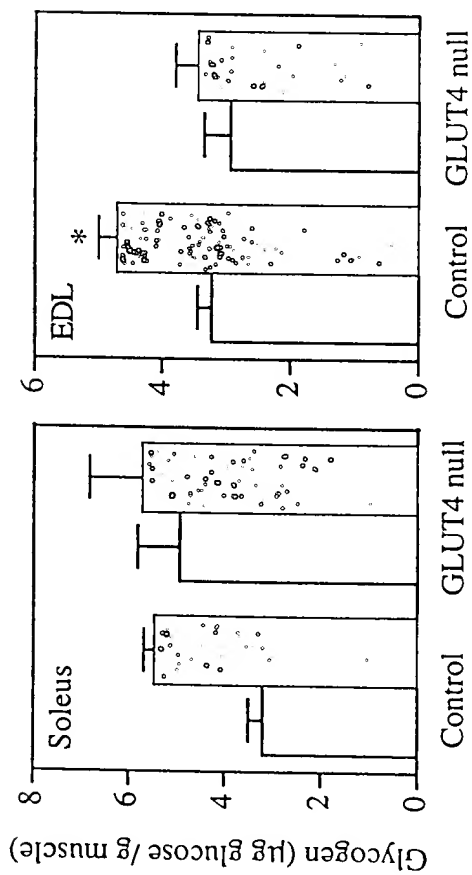
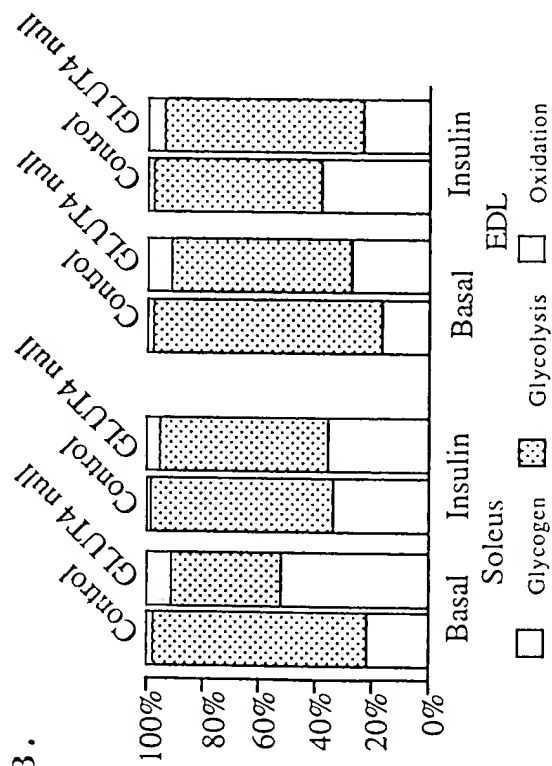


FIG. 3

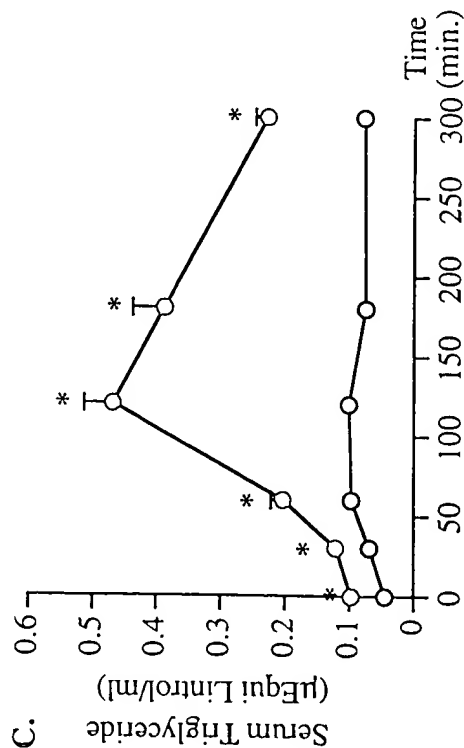
A.



B.



C.



D.

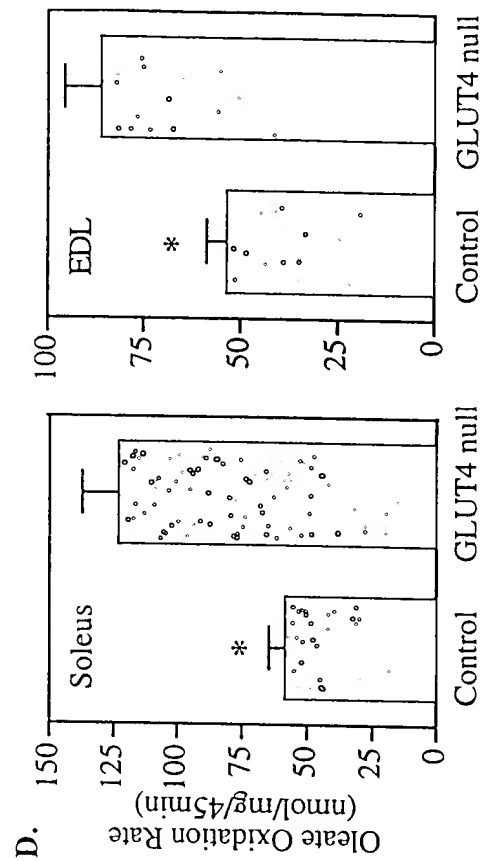


FIG. 4

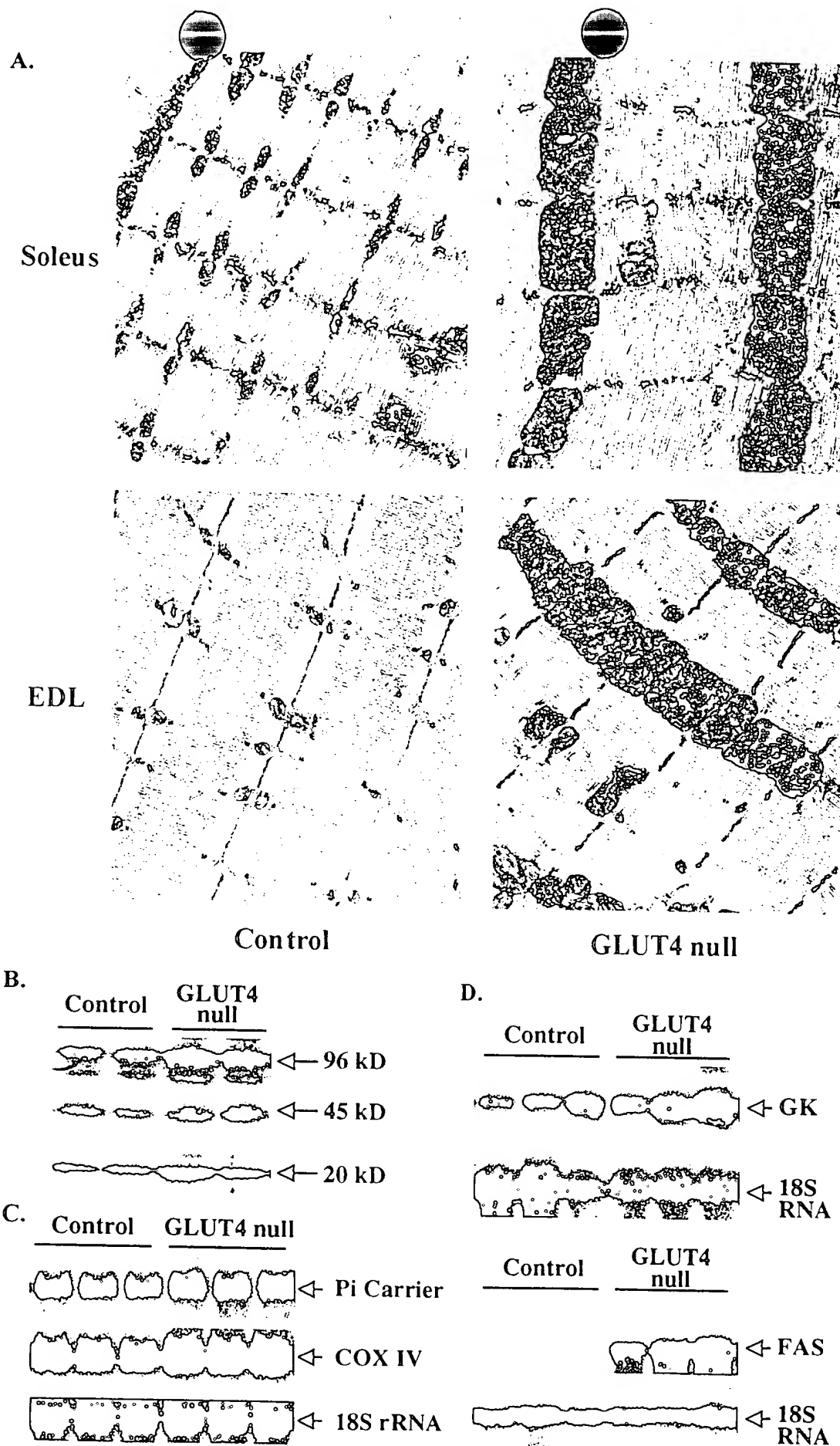


FIG. 5

GT4	I	V	A	I	G	E	L	A	F	F	E	I	G	P	I	P	W	F	V	A	E	F	B	Q	G	P	R	P	A	M	A	V	A	G	F	S	N	I	T	C	N	F	I	V					
GTx	U	G	S	M	C	L	F	I	A	G	F	R	A	G	G	P	I	P	W	L	L	M	S	E	I	F	P	L	H	I	K	G	V	A	T	G	V	C	V	L	T	N	W	F	M	A	F	L	V
Consensus																																																	

GT4	G	M	G	F	I	Y	V	A	D	R	M	G	P	Y	V	A	L	F	A	V	L	L	L	G	F	F	I	F	T	F	L	K	V	P	E	T	G	R	T	F	D	I	S	A	R	F			
GTx	T	K	E	F	N	S	I	M	E	I	L	R	P	Y	D	R	A	L	T	A	R	F	C	I	L	S	V	L	F	T	L	T	V	P	E	T	G	R	T	E	Q	I	T	A	F				
Consensus																																																	

FIG. 6

GTx	U	G	S	M	C	L	F	I	A	G	F	R	A	G	G	P	I	P	W	L	L	M	S	E	I	F	P	L	H	I	K	G	V	A	T	G	V	C	V	L	T	N	W	F	M	A	F	L	V
Rgt2	I	A	F	I	C	L	F	I	A	R	F	S	A	T	W	G	G	V	U	U	J	S	A	E	L	Y	P	L	G	V	R	S	K	O	T	R	I	C	A	A	N	W	L	U	N	E	T	C	
Snf3	I	A	F	I	C	L	F	I	A	R	F	S	A	T	W	G	G	V	U	U	J	S	A	E	L	Y	P	L	G	V	R	S	K	O	T	R	I	C	A	A	N	W	L	U	N	E	T	C	
Consensus	I	A	F	I	C	L	F	I	A	R	F	S	A	T	W	G	G	V	U	U	J	S	A	E	L	Y	P	L	G	V	R	S	K	O	T	R	I	C	A	A	N	W	L	U	N	E	T	C	

FIG. 7

001020-60154500

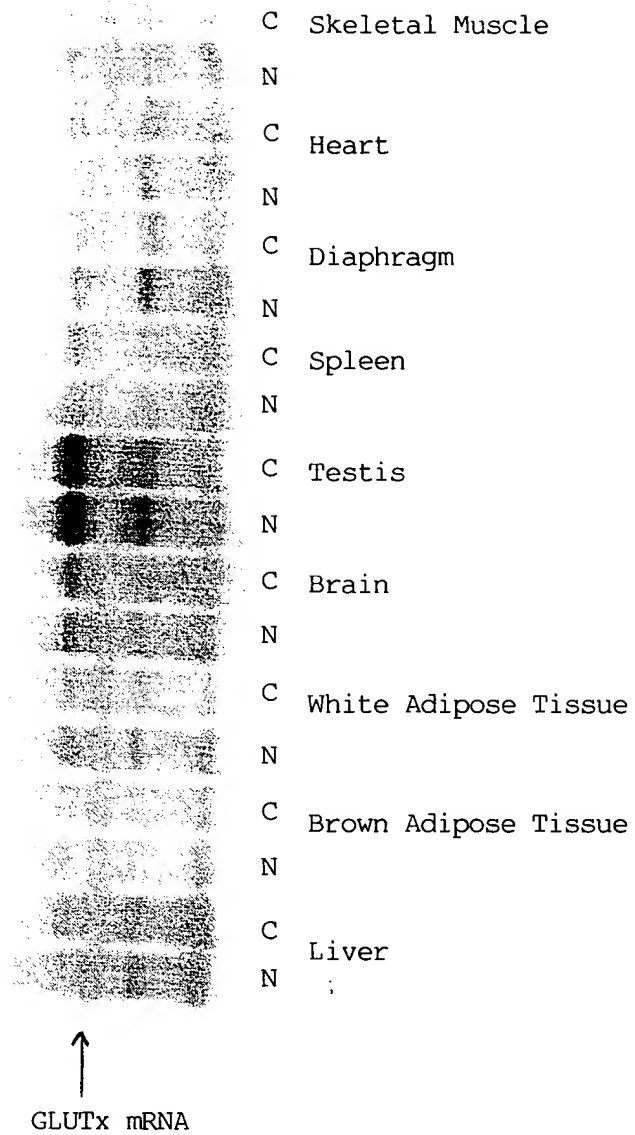


FIGURE 8

HUMAN nucleic acid sequence

AACTTGCGGCCCGCGCGTCTTCCTCGCCGCCTTCGCCGCTGCCCTG
GGCCCACTCAGCTTCGGGCTTCGCGCTCGGCTACAGCTCCCCGGCCA
TCCCTAGCCTGCAGCGCGCCGCGCCCCCGGCCCCGCGCCTGGACG
ACGCCGCGCGCCTCCTGGTTCGGGGCTGTCGTGACCCTGGGTGCCG
CGGCGGGGGGAGTGCTGGGCGGCTGGCTGGTGGACCGCGCCGGGGC
GCAAGCTGAGCCTCTTGCTGTGCTCCGTGCCCTTCGTGGCCGGGCTT
TGCCGTCATCACCGCGGCCCAGGACGTGTGGATGCTGCTGGGGGG
CCGCCTCCTCACCGGCCTGGCCTGCGGTGTTGCCTCCCTAGTGGCC
CCGGTCTACATCTCCGAAATCGCCTACCCAGCAGTCCGGGGGGTTGC
TCGGCTCCTGTGTGCAGCTAATGGTCGTTCGTTCGGCATCCTCCTGGC
CTACCTGGCAGGCTGGGTGCTGGAGTGGCGCTGGCTGGCTGTGCT
GGGCTGCGTGCCCCCCTCCCTCATGCTGCTTCTCATGTGCTTCATG
CCCGAGACCCCGCGCTTCCTGCTGACTCAGCACAGGCGCCAGGAG
GCCATCGCCCTGCGGTTCTCCTGTGGGGCTCCGAGCAGGGCTGGGAA
GACCCCCCATCGGGGCTGAGCAGAGCTTTCACCTGGCCCTGCTGC
GGCAGCCCGGCATCTACAAGCCCTTCATCATCGGTGTCTCCCTGAT
GGCCTTCCAGCAGCTGTCGGGGGGTCAACGCCGTCATGTTCTATGCA
GAGACCATCTTTGAAGAGGCCAAGTTCAAGGACAGCAGCCTGGCC
TCGGTCGTTCGTGGGTGTCATCCAGGTGCTGTTACAGCTGTGGCG
GCTCTCATCATGGACAGAGCAGGGCGGAGGCTGCTCCTGGTCTTG
TCAGGTGTGGTCATGGTGTTCAGCACGAGTGCCCTTCGGCGCCTACT
TCAAGCTGACCCAGGGTGGCCCTGGCAACTCCTCGCACGTGGCCAT
CTCGGCGCCTGTCTCTGCACAGCCTGTTGATGCCAGCGTGGGGCT
GGCCTGGCTGGCCGTGGGCAGCATGTGCCTCTTCATCGCCGGGCTT
TGCGGTGGGCTGGGGGGCCCATCCCCTGGCTCCTCATGTCAGAGAT
CTTCCCTCTGCATGTCAAGGGCGTGGCGACAGGCATCTGCGTCCTC
ACCAACTGGCTCATGGCCTTTCTCGTGACCAAGGAGTTCAGCAGCC

FIG. 9

TCATGGAGGTCCTCAGGCCCTATGGAGCCTTCTGGCTTGCCTCCGC
TTTCTGCATCTTCAGTGTCTTTTCACTTTGTTCTGTGTCCCTGAA
ACTAAAGGAAAGACTCTGGAACAAATCACAGCCCATTGAGGGGC
GATGACAGCCACTCACTAGGGGATGGAGCAAGCCTGTGACTCCAA
GCTGGGGCCCAAGCCCAGAGCCCCTGCCTGCCCCAGGGGAGCCAGA
ATCCAGCCCCTTGGAGCCTTGGTCTGCAGGGTCCCTCCTTCCTGTC
ATGCTCCCTCCAGCCCATGACCCGGGGCTAGGAGGCTCACTGCCTC
CTGTTCCAGCTCCTGCTGCTGCTCTGAGGACTCAGGAACACCTTCG
AGCTTTGCAGACCTGCGGTCAGCCCTCCATGCGCAAGACTAAAGCA
GCGGAAGAGGAGGTGGGCCTCTAGGATCTTTGTCTTCTGGCTGGA
GGTGCTTTTGNAGGTTGGGTGCTGGGCATTTCGGTCGCTCCTCTCAC
GCGGCTGCCTTATCGGGAAGGAAATTTGTTTGCCAAATAAAGACGT
GACACAGAAAATCAAAAAAAAAAAAAAAAAAAATTCC

FIG. 9 cont.

HUMAN amino acid sequence

RRVFLAAFAAALGPLSFGFALGYSSPAIPSLQRAAPPAPRLDDAAASW
FGAVVTLGAAAGGVLGGWLVDRAGRKLSLLCSVPFVAGFAVITAAQ
DVWMLLGGRLLTGLACGVASLVAPVYISEIAYPAVRGLLGSCVQLMV
VVGILLAYLAGWVLEWRWLAVLGCVPPSLMLLLMCFMPETPRFLLTQ
HRRQEAIALRFLWGSEQGWEDPPIGAEQSFHLALLRQPGIYKPFIIGV
SLMAFQQLSGVNAVVMFYAETIFEEAKFKDSSLASVVVGVIQVLFTAVA
ALIMDRAGRRLLLVLSGVVMVFSTSAFGAYFKLTQGGPGNSSHVAIS
APVSAQPVDASVGLAWLAVGSMCLFIAGFAVGWGPIPWLLMSEIFPL
HVKGVATGICVLTNWLMAFLVTKEFSSLMEVLRPYGAFWLASAFCIF
SVLFTLFCVPETKGKTLEQITAHFEGR*QPLTRGWSKPVTPSWAQAQ
SPCLPQGSQNPAPWSLGLQGSPFLSCSLQPMTRG

FIG. 10

RAT GLUTx nucleic acid sequence (1037)

TGGCGGCCGCTCTAGAACTAGTGGATCCCCCGGGCTGCAGGAATTCGGCAC
GAGCTGGTGCCCATCTCCGCAGAGCCTGCTGATGTTACCTGGGGCTGGCCT
GGCTGGCTGTAGGCAGCATGTGCCTCTTCATCGCTGGTTTTGCAGTAGGCTG
GGGACCCATCCCCTGGCTCCTCATGTCAGAGATCTTCCCTCTGCACATCAAG
GGTGTGGCTACCGGCGTCTGTGTCCTACCAACTGGTTCATGGCCTTTCTGG
TGACCAAAGAGTTTAAACAGCATCATGGAGATCCTCAGACCCTACGGCGCCTT
CTGGCTCACCGCTGCCTTCTGTATCCTCAGCGTCCTTTTCACGCTCACCTTTG
TCCCTGAGACTAAAGGCAGGACTCTGGAACAAATCACAGCCCATTGAGGGA
CGGTGACGGACCCCTTTCTGTGACTGGCAGCCCTGAGCTGAGCTGGCTTCGG
GTTTCAAAGGAGTGGAGTGGCCTCAGTGACCACAGTTTGAGCCCAGGGGC
CCCCTGACTCCTCAGATTTCCGGGCCAGCTTTGTCCAGATCTCAACCCAGATT
CCACACCATGAGCTTCACCAGATTCTGAGGCTCNTGNAGCCTGCTGCACACA
CAGCACATTTGCGGGCTCCTGGCTCTAGTGCTCTGGCTGGGCATCTTTGGGG
TGCTTGGTCCTAAGCAACTGCCCATACCTCACTTGACTGGGGGATGAGAAAG
GGACTTAGCCACATAAGATTTGGGCTCAGAAACAAGGTCAGGTGAGTCCAG
GAAGAAAAGAGAATGGTTCTTGTCTTGTCAACCAAGTCCTTCTCAGAGTGCC
AAAGACCTCCGGATTCACCTTGGGGTTAGCCAGCTTACCCATCACTTACAGG
TTCTCTCCAACCTCTCAGCTGGTCTCAGTGTCCTGGATCATTAGTCACCAGGTC
TTGTTGAGTTTCAGAAAAATAAAAGGCCTCTTTCCGTTCAAAAAAAAAAAAAA
AAACTCGAGGGGGGGGCC

RAT GLUTx amino acid sequence (165)

WRPLZNZWIPRAAGIRHELVPISAEPADVHLGLAWLAVGSMCLFIAGFAVGWG
PIPWLLMSEIFPLHIKGVATGVCVLTNWFMALVTKEFNSIMEILRPYGAFWLT
AAFCILSVLFTLTVPETKGRTLEQITAHLRDGDGPLSVTGSPELSWLRVSKGVE
WPQ

MOUSE GLUTx nucleic acid sequence (282)

GAGCCTGCTGATGTTACCTGGGGCTGGCCTGGCTGGCTGTAGGCAGCATGTGC
CTCTTCATCGCTGGTTTTGCAGTAGGCTGGGGACCCATCCCCTGGCTCCTCATGT
CAGAGATCTTCCCTCTGCACATCAAGGGTGTGGCTACCGGCGTCTGTGTCCTCAC
CAACTGGTTCATGGCCTTTCTGGTGACCAAAGAGTTTAACAGCATCATGGAGATC
CTCAGACCCTACGGCGCCTTCTGGCTCACCGCTGCCTTCTGTATCCTCAGCGTCC
TTTTCACG

001000-001000

[illegible]

83648.1

FIG. 14

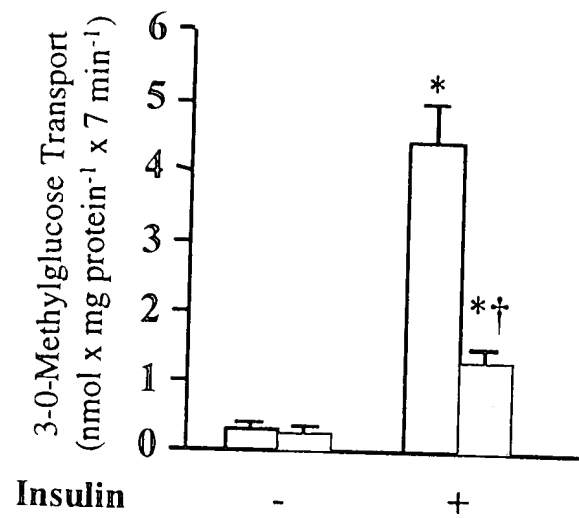


FIG. 15

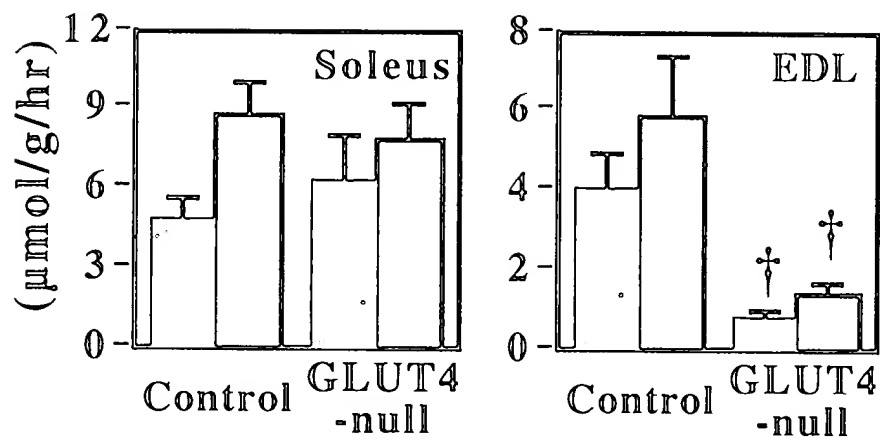


FIG. 16

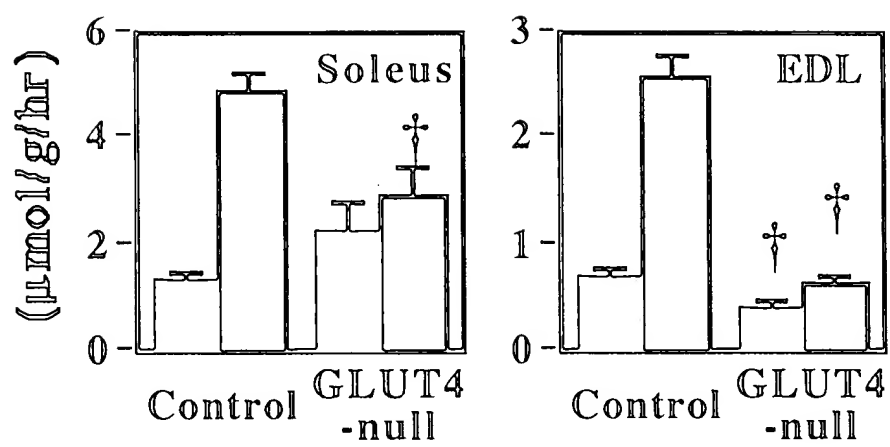


FIG. 17

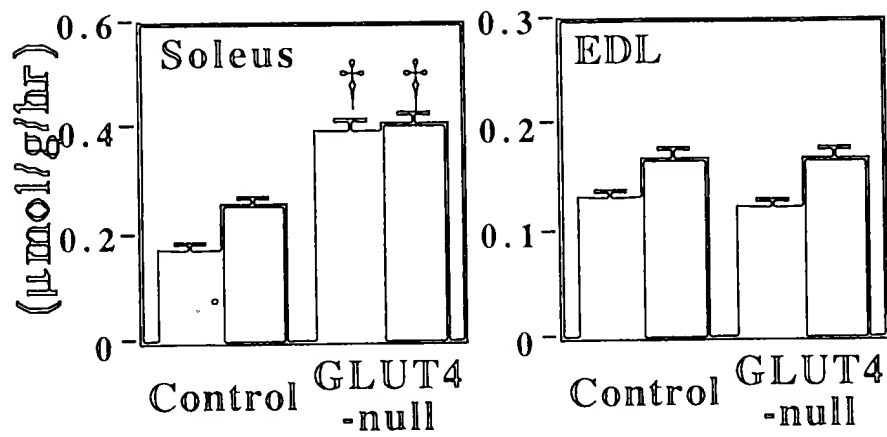


FIG. 18